

Healthcare Hot Spotting: Variation in Quality and Resource Use in California

Kelly Miller, Project Manager

Jill Yegian, Ph.D., Senior Vice President, Programs and Policy

Dolores Yanagihara, M.P.H., Vice President, Performance Measurement

A new online tool, HEDIS by Geography, tracks the quality of care and health care resource use in California—and displays them by ZIP code and product line. The results graphically pinpoint areas to target for improvement.

Extensive information is available on the quality performance of health plans and physician organizations in California. The Office of the Patient Advocate (OPA) has report cards for HMO and PPO health plans and medical groups serving HMO patients. In 2015, OPA will add Medicare Advantage to its medical group report card. In addition, California's Department of Health Care Services maintains a Medi-Cal Managed Care Performance Dashboard tracking the quality, resource use and satisfaction levels with the state's health plans. While essential for informing providers in quality improvement efforts and consumers in decision-making, this information does not paint a clear picture of population health by geographic region.

This Issue Brief presents analyses of data available through the HEDIS by Geography tool, accessible at <https://hbg.iha.org>. The tool allows users to display and compare measures of both quality of care and use of health care resources throughout California. Rates can be displayed by product line and geographic area—from as granular as a ZIP code to as extensive as statewide averages.

Two main themes are highlighted in this brief:

Health plan products that rely primarily on integrated care delivery networks, such as HMOs and Medicare Advantage, generally have higher quality scores without using more resources. Analysis reveals higher quality scores in Commercial HMOs compared to Commercial PPOs, and data suggest lower resource use rates in Medicare Advantage compared to Medicare fee-for-service (FFS).

Resource use and health care quality vary widely throughout the state. The data collected and displayed highlight substantial variation within single measures across geographic areas in California.

Data on the website cover about 19 million Californians, nearly half of the state's total population. Eleven health plans participated in this project, contributing data across all of their product lines. Exhibit 1 shows enrollment for each product line available



www.iha.org

Published by
Integrated Healthcare Association

© 2015
Integrated Healthcare Association
All rights reserved

ABOUT THIS ISSUE BRIEF

In May 2015, the Integrated Healthcare Association (IHA) launched an interactive online tool that displays Healthcare Effectiveness Data and Information Set (HEDIS) data by various geographic units. The tool, available at <https://hbg.iha.org>, tracks clinical measurements for the priority health conditions of cancer, diabetes and asthma. It also displays data summarizing quality of care and resource use as filtered by product line.

This Issue Brief presents highlights of data available through the HEDIS by Geography tool—with particular concentration on what products offered the highest quality, as well as variation in quality measures tracked by geographic area.

Exhibit 1: Product Lines and Enrollment, HEDIS by Geography (2013 data)

Product Line	HEDIS by Geography Enrollment	% of Total Enrollment in CA
Commercial HMO	8,512,070	≈ 80%
Commercial PPO	4,653,804	≈ 50%
Medicare Advantage	1,650,563	≈ 85%
Managed Medi-Cal	4,107,006	≈ 70%
Total	18,923,443	

Sources: Total Enrollment in CA data gathered from the California HealthCare Foundation (<http://www.chcf.org/>), the Kaiser Family Foundation (<http://kff.org/>), the California Department of Health Care Services (<http://www.dhcs.ca.gov>) and the California Department of Managed Health Care (<https://www.dmhc.ca.gov/>). Percentages are approximate.

on the HEDIS by Geography tool, as well as the approximate proportion of statewide enrollment represented by the data; data on fee-for-service Medi-Cal and Medicare are not included, nor is the uninsured population. Appendix A lists the plans that contributed data, and provides details on the methodology. Appendix B provides information about the six clinical quality and three resource use measures analyzed in this brief, as well as a comprehensive user's guide to the tool.

A note on limitations of the analysis: the results presented here are descriptive. Adjustments were not made for the characteristics of the patient population or availability of medical services in a geographic area. While such adjustments may be appropriate and useful in some cases, particularly for resource use measures, the objective of this Issue Brief was simply to present observed rates of clinical quality and resource use for key measures. Data presented here represent care delivered during 2013, before full implementation of the Affordable Care Act—including the expansion of Medi-Cal and launch of Covered California, the state's health benefit exchange. As previously uninsured patients enroll in Medi-Cal and Covered California products, future updates to the data may reveal different results.

CLINICAL QUALITY BY PRODUCT LINE

Commercial HMOs outperform Commercial PPOs

Commercial HMOs outperformed Commercial PPOs on five of the six clinical quality measures that HEDIS by Geography tracks. The results reflect the number of patients who received appropriate care; a higher percentage

"If the PPO enrollees had been appropriately screened for breast cancer at the same rate as those in HMOs, 55,356 more California women would have received mammograms in 2013."

indicates more people receiving care in line with optimal clinical guidelines. For example, of the population included in HEDIS by Geography, 84.5% of the Commercial HMO women ages 50-74 met clinical guidelines for breast cancer screening and received a mammogram. In comparison, only 69.7 percent of similar Commercial PPO patients were screened for breast cancer. If the 4.6 million PPO enrollees represented by these data had been appropriately screened for breast cancer at the same rate as those in HMOs, 55,356 more California women would have received mammograms in 2013.

PPO average quality scores trailed those of HMOs by 11 to 46 percentage points, with the sole exception of the measure of Medication Management for People with Asthma, for which the Commercial PPO rate was a few points higher than the HMO rate.

In some cases, there is a dramatic spread. However, the largest gap, in Blood Sugar Control for People with Diabetes, may be at least partially due to data availability, as it requires that lab results data be received by the plan and matched with the correct patient; the other measures are taken directly from claims and encounter data—the equivalent of a bill sent from the physician to the plan after services are rendered.

The difference in Colorectal Cancer Screening rates is also large: 24 percentage points. By way of illustration, 197,385 more PPO enrollees represented by these data would have to receive a colorectal cancer screening to make the two rates equal.

Exhibit 2 shows the average result for each of the six clinical quality measures tracked in HEDIS by Geography, by product line.

Strong performance in Medicare HMO

Medicare Advantage, the HMO product line available to Medicare enrollees as an alternative to obtaining care in the market on a fee-for-service basis, had the highest average quality scores compared with the other product lines. Statewide averages were highest for every reported clinical quality measure.

Exhibit 2: Clinical Quality Measures by Product Line

Measure Name	California Statewide Average				
	Commercial HMO (%)	Commercial PPO (%)	Medicare Advantage (%)	Managed Medi-Cal (%)	All Products (%)
Breast Cancer Screening	84.5	69.7	86.8	57.4	80.7
Colorectal Cancer Screening	71.1	47.5	79.4	N/A	67.1
Blood Sugar Control for People with Diabetes	70.3	24.5	77.9	42.9	62.4
Blood Sugar Screening for People with Diabetes	91.6	80.7	95.0	78.3	89.3
Kidney Disease Monitoring for People with Diabetes	90.1	70.7	95.8	79.8	87.5
Medication Management for People with Asthma	40.1	44.1	N/A	35.4	39.7

For example, the average rates for Breast Cancer Screening by population were:

- 86.8 percent in Medicare Advantage
- 84.5 percent in Commercial HMO
- 69.7 percent in Commercial PPO, and
- 57.4 percent in Managed Medi-Cal.

Medi-Cal quality scores low

Managed Medi-Cal clinical quality scores were lower than the managed Commercial and managed Medicare rates for all clinical quality measures included here. (Colorectal Cancer Screening is not measured in the Medi-Cal population, as it is only recommended for patients over 50.)

However, managed Medi-Cal rates were higher than Commercial PPO for diabetes care—for both Blood Sugar Control and Kidney Disease Monitoring measures. In general, the patient population covered by Medi-Cal is considered more complex, and is lower income, than Commercial PPO enrollees. Accordingly, it is somewhat surprising that the Medi-Cal managed care plans show stronger results than the Commercial PPO plans on several quality measures.

Data presented here represent care delivered during 2013, before the Medi-Cal expansion in California.

RESOURCE USE BY PRODUCT LINE

The HEDIS by Geography tool also tracks resource use across ZIP codes in California by product line. For the Emergency Department (ED) Visits and Inpatient Bed

Days measures, results are presented per thousand member years (PTMY). The Readmissions measure reports the percent of hospital admissions resulting in a readmission within 30 days. Resource Use results are presented by product line in Exhibit 3. Unlike quality measures, where a higher score indicates more patients receiving clinically appropriate care, there is no ideal level of resource use. However, trends in health care indicate substantial overuse of services, and lower rates can indicate that care is coordinated more efficiently.

Managed Medi-Cal utilization high

The Medi-Cal population had some of the highest utilization rates, driven largely by the high need SPD population (Seniors and Persons with Disabilities). The SPD average rate of Readmissions was 16.4 percent, while the non-SPD average was 8.7 percent, similar to the Commercial HMO and PPO rate of 8.1 percent. The same pattern was seen for Inpatient Bed Days, where the non-SPD rate was similar to the Commercial rates, but the SPD rate was significantly higher.

For ED Visits, however, both the SPD average of 392.4 and non-SPD average of 421.5 were much higher than Commercial HMO and PPO product lines (159.3 and 116.3, respectively), and even topped the Medicare Advantage ED visit average (372.3). Higher use of emergency department services among the Medi-Cal population is not surprising, but the extent of the difference raises questions about what is driving the utilization and how it might be more effectively managed.

Exhibit 3: Resource Use Measures by Product Line

Measure Name	California Statewide Average						All Products
	Commercial HMO	Commercial PPO	Medicare FFS	Medicare Advantage	Managed Non-SPD	Medi-Cal SPD	
Readmissions (% of admissions)	8.1	8.1	18.4	11.2	8.7	16.4	10.2
ED Visits (PTMY)	159.3	116.3	567	372.3	421.5	392.4	228.3
Inpatient Bed Days (PTMY)	133.5	133.3	1,363	758.3	121.5	534.5	209.9

Abbreviations: PTMY = Per Thousand Member Years; SPD = Seniors and Persons with Disabilities, a subset of the Medi-Cal population

Sources: Medicare FFS data come from Medicare Geographic Variation Public Use Files, State/County Table—All Beneficiaries, 2013 at www.cms.gov; source for all other data is HEDIS by Geography.

GETTING A BOOST FROM THE STARS?

To encourage Medicare Advantage plans to provide quality care, the Affordable Care Act authorized Medicare to pay plans bonuses based on the program's 5-star quality rating system.

The Centers for Medicare and Medicaid Services (CMS) launched a three-year demonstration implemented in 2012, rewarding high scoring plans with bonus payments and the ability to market to beneficiaries. In addition, CMS reserves the right to terminate contracts with those plans that earn a rating below three stars for three consecutive years.

CMS uses quality measures focusing on areas such as managing long-term conditions, preventative care, member experiences with drug plans and plans' customer service. Like HEDIS by Geography, the CMS Medicare Stars program tracks breast and colorectal cancer screenings, diabetes blood sugar screening and control, and diabetes kidney disease monitoring, although it does not measure asthma medication management.

Early analysis shows the performance incentives are working. The ratings CMS released for 2015 showed stable or improved performance in nearly 70 percent of the 46 Medicare Parts C and D Star measures—seven of which improved by more than ½ Star from 2014 to 2015, and 13 of which earned ratings above 4 Stars in 2015. These results are consistent with the HEDIS by Geography project findings that Medicare Advantage plans provide high quality care.

While there is much room for improvement, the Stars data not only act as an incentive for plans to achieve bonuses—but importantly, will provide a way to monitor whether quality ratings and bonus payments foster better care and improved health outcomes for patients in the future.

Commercial HMO and PPO resource utilization similar

The average Commercial HMO and PPO utilization rates statewide were almost identical for Readmissions and Inpatient Bed Days. Commercial HMO members had higher ED use than Commercial PPO members however; they visited the ED an average of 43 more times per thousand member years. The small difference between utilization rates in the Commercial HMO and PPO product lines is unexpected, given the perception that utilization in HMO products is managed more tightly than in PPO.

Medicare Advantage utilization rates were significantly higher than the Commercial product lines, which is expected given the greater complexity of the health care needs of the senior population.

Medicare Advantage utilization lower than FFS

Unlike Commercial HMO and PPO, the difference between managed and unmanaged Medicare utilization rates was striking. Although the results came from different sources, the substantial difference in utilization rates—with Medicare Advantage rates only 55-65% of the Medicare FFS rates—indicates that there is likely a true difference in performance. Selection bias may be contributing to the difference—that is, older people with more complex health conditions opting out of Medicare Advantage—but lower utilization could also reflect effective population health management by the Medicare Advantage health plans and their contracted providers.

Exhibit 4: Comparison of National and California Clinical Quality Measures

Measure Name	National Average		California Average	
	Commercial HMO (%)	Commercial PPO (%)	Commercial HMO (%)	Commercial PPO (%)
Breast Cancer Screening	73.7	69.5	84.5	69.7
Colorectal Cancer Screening	62.9	56.5	71.1	47.5
Blood Sugar Control for People with Diabetes	69.3	62.4	70.3	24.5
Blood Sugar Screening for People with Diabetes	89.6	87.3	91.6	80.7
Kidney Disease Monitoring for People with Diabetes	83.8	78.8	90.1	70.7
Medication Management for People with Asthma	46.8	49.6	40.1	44.1

Source for national data is NCQA Quality Compass, 2014 (reflects performance in 2013); source for California data is HEDIS by Geography.

CALIFORNIA IN A NATIONAL CONTEXT

California outperforms the nation as a whole on both clinical quality and resource use, based on comparison of HEDIS by Geography data to national averages reported by the National Committee for Quality Assurance (NCQA). At the national level, HEDIS measures follow the same patterns as those observed in HEDIS by Geography for California: Commercial HMO rates are higher than Commercial PPO rates for every clinical quality measure except Medication Management for People with Asthma (see Exhibit 4).

But the quality differential between product lines in California is larger than the national differential. Commercial HMO rates in California outperformed national rates for every measure except for Medication Management for People with Asthma, while California Commercial PPO

rates were lower than national PPO rates for five of the six measures and about the same for the Breast Cancer Screening measure. One would expect California's rates to be somewhat lower than national rates, simply because the national measurement rates use a process called "chart review" that allows data collectors to go back to a patient's chart and find the information they need for the clinical quality measure, usually resulting in a higher score; by contrast, the California HEDIS by Geography rates rely purely on billing data. Therefore, the lower California PPO rates compared to national rates are not particularly surprising, while the higher HMO rates indicate performance strong enough to overcome the disadvantage conferred by administrative-only data.

Exhibit 5 shows national averages for Commercial HMO and PPO product lines for two of the resource use

Exhibit 5: Comparison of National and California Resource Use Measures

Measure Name	National Average		California Average	
	Commercial HMO	Commercial PPO	Commercial HMO	Commercial PPO (%)
ED Visits (PTMY)	191.5	178.7	159.3	116.3
Inpatient Bed Days (PTMY)	180.1	170.2	133.5	133.3

Abbreviation: PTMY = Per Thousand Member Years

Notes: Source for national data is NCQA Quality Compass, 2014 (reflects performance in 2013); source for California data is HEDIS by Geography. Readmissions are not included in the table because national data that is comparable to the HEDIS by Geography data is not available.

Exhibit 6: Resource Use Across Zip Codes

Percentiles Across ZIP Codes			
	5th	50th	95th
Readmissions (% of admissions)	4.9	9.9	14.1
ED Visits (PTMY)	111.3	193.9	385.4
Inpatient Bed Days (PTMY)	75.7	195.4	412.9

Abbreviation: PTMY = Per Thousand Member Years

measures tracked in HEDIS by Geography. Both Commercial product lines in California have lower utilization of ED Visits and Inpatient Bed Days than the national average.

GEOGRAPHIC VARIATION ACROSS CALIFORNIA

The HEDIS by Geography tool highlights the variation in each of the three resource use measures—Readmissions, Emergency Department (ED) Visits and Inpatient Bed Days—presenting a graphic picture of the variations in both resource use and quality of care throughout the state.

Large variation in resource use measures by ZIP code

The 5th percentile of Readmissions is 4.9 percent: about 5 percent of ZIP codes had a lower Readmission rate, and 95 percent of ZIP codes had a higher Readmission rate. Readmissions are almost three times as high in the 95th percentile ZIP code compared to the 5th percentile ZIP code.

The range is even larger for ED Visits and Inpatient Bed Days. The 95th percentile of ED Visits is about 3.5 three times larger than the rate for the 5th percentile. For Inpatient Bed Days, the 95th percentile ZIP code rate was more than five times as large as the rate for the 5th percentile ZIP code.

Exhibit 6 shows the 5th, 50th and 95th percentiles of the resource use measures across ZIP codes in California.

Exhibit 7 shows the 10 counties in the state with the highest and lowest rates for ED Visits, which vary significantly. Residents in Kings, the county with the highest ED use, visit the ED more than three times as frequently as residents in Santa Cruz.

Exhibit 7: ED Visit Rates: Lowest and Highest, by County

Emergency Department Visits (PTMY)					
10 Counties with Lowest Rates			10 Counties with Highest Rates		
County	Rank	Rate	County	Rank	Rate
Santa Cruz	1	108.0	Kings	58	353.5
Sutter	2	121.6	Tulare	57	348.0
Butte	3	128.5	Stanislaus	56	347.3
Monterey	4	134.2	San Bernardino	55	325.9
Glenn	5	136.0	Madera	54	302.6
Shasta	6	147.7	Imperial	53	301.2
Santa Barbara	7	147.9	Sacramento	52	290.1
Colusa	8	149.5	Riverside	51	265.8
Ventura	9	154.3	Fresno	50	265.3
Santa Clara	10	156.1	Los Angeles	49	244.5

Abbreviation: PTMY = Per Thousand Member Years

Exhibit 8: ED Visits, Counties with Highest and Lowest Rates

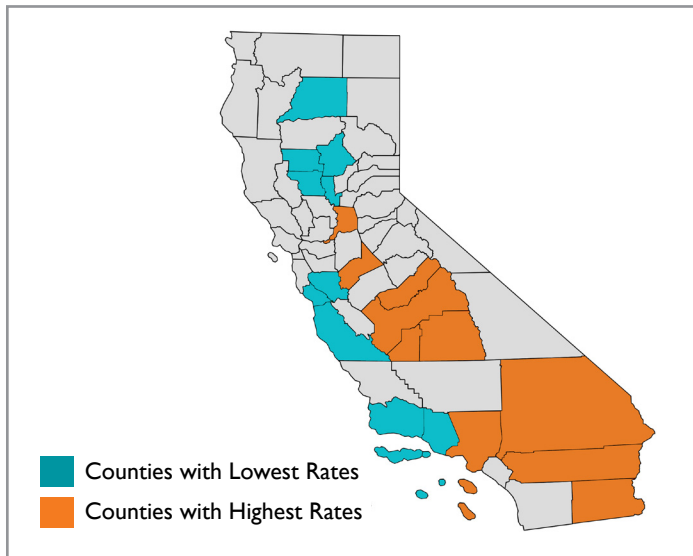


Exhibit 8 is a graphic depiction of the use of health care resources throughout the state. Blue counties indicate counties with the lowest rates of ED Visits, while orange counties are those with the highest use.

Large variation in clinical quality measures by ZIP code

Exhibit 9 shows the minimum and maximum rates, as well as the 25th, 50th, and 75th percentiles of the rates of clinical quality measures across ZIP codes in California. In general, the lowest quartiles have the largest ranges—indicating there is more variation, and more room for improvement, among lower performing ZIP codes.

Exhibit 10 shows the 10 highest and lowest performing counties in the state for Colorectal Cancer Screening. The rates vary significantly across counties. For example, the rate of screening in Modoc county trails that of Solano by a substantial 43 percentage points. Since Medi-Cal data are not available for colorectal cancer screening, the figures below represent the statewide averages across commercial HMO, commercial PPO, and Medicare Advantage product lines for participating health plans; see Table B-1 in Appendix B for a full listing of measures by product line.

Exhibit 9: Variation in Clinical Quality Ratings by ZIP Code

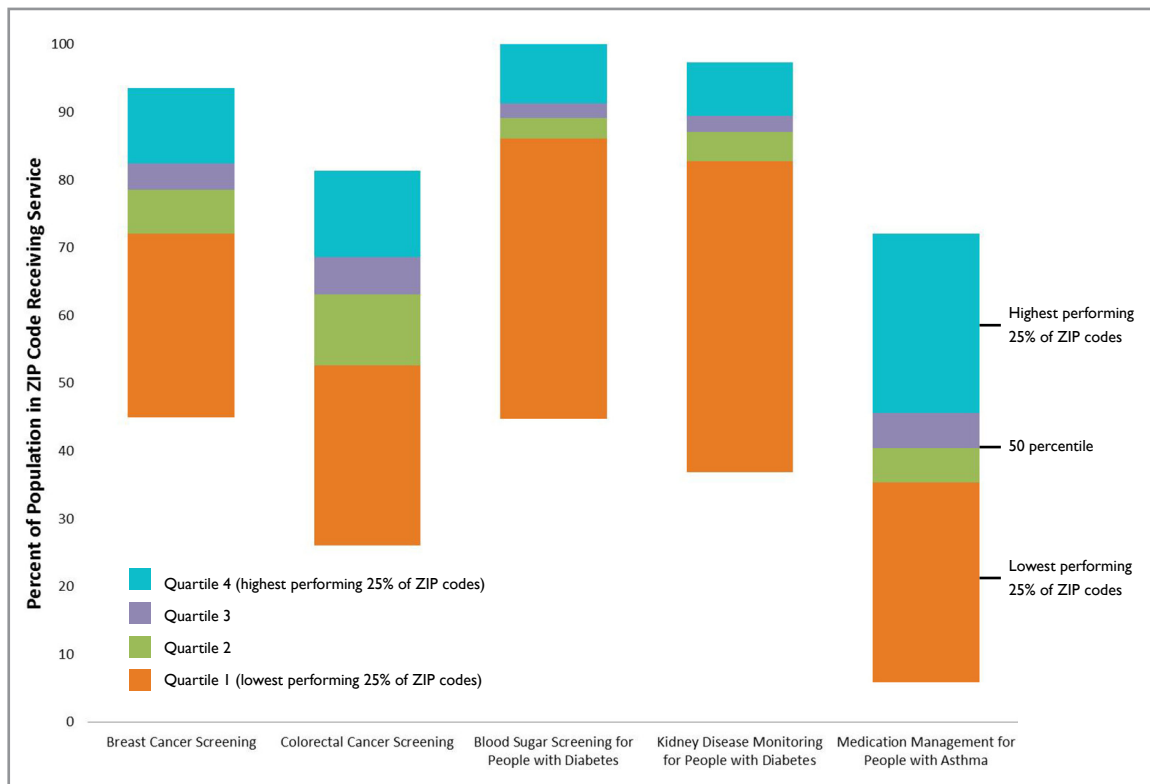
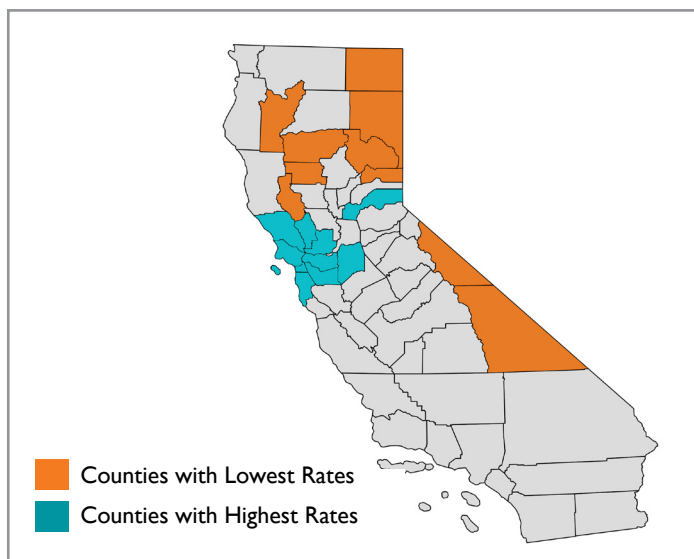


Exhibit 10: Colorectal Cancer Screening Rates, Highest to Lowest, by County

Colorectal Cancer Screening					
10 Highest Performing Counties			10 Lowest Performing Counties		
County	Rank	Rate (%)	County	Rank	Rate (%)
Solano	1	76.4	Modoc	58	33.5
Contra Costa	2	74.3	Mono	57	39.6
Alameda	3	74.2	Plumas	56	39.9
Marin	4	73.9	Trinity	55	43.0
Sonoma	5	72.4	Glenn	54	43.1
Napa	6	72.1	Tehama	53	43.6
San Joaquin	7	71.6	Lassen	52	44.2
San Mateo	8	71.6	Sierra	51	45.0
San Francisco	9	71.4	Inyo	50	45.6
Placer	10	71.1	Lake	49	45.9

Exhibit 11 helps illustrate the quality of health care by county. Blue counties have the highest rates of Colorectal Cancer Screening; orange counties are those with the lowest rates. The highest performing counties are centered in the greater Bay Area, while the lowest performers are in rural areas of North and Central California.

Exhibit 11: Colorectal Cancer Screening: Counties with Highest and Lowest Rates



INSIGHTS GAINED

Aggregating and analyzing data on several clinical quality and resource use measures representing 19 million Californians generated new insights based on product line and geography.

Viewing the data at the ZIP code level by product line reveals that commercial HMOs outperform commercial PPOs on clinical quality, with similar resource use; national data reinforce the finding, showing similar results. Likewise, the significantly lower resource use rates for Medicare Advantage's HMO products compared to Medicare FFS suggest a potential for savings based on reducing use of inpatient services; data on Medicare FFS quality ratings were not available.

Medi-Cal managed care shows lower quality and higher resource use for several measures in comparison with Commercial products. In some cases, utilization is dramatically higher, especially for the SPD members. While not entirely surprising given that the Medi-Cal population is low-income and tends to be more complex, the results nevertheless point to the potential for significant quality improvement and savings in Medi-Cal. Moreover, the data pre-dates the expansion of Medi-Cal eligibility in California. Since Medi-Cal now covers nearly one-third of California's population, the findings are even more salient—and urgent.

Analyzing quality and resource use measures through a geographic lens reveals wide variation across the state, with vast differences in clinical quality and resource use between the counties with the highest and lowest rates. Such large differences signify an opportunity for major improvements in the care provided to large segments of California's population.

Additional analyses, going beyond the results presented in this Issue Brief, will doubtless yield new insights. For example, geographic units representing hospital referral regions, hospital service areas and Covered California regions within California are all available for viewing on the interactive map at <https://hbg.iha.org>, and for analysis through the downloadable data.

Acknowledgments

This project was generously supported by a grant from the California HealthCare Foundation (CHCF). IHA's HEDIS by Geography project team included Cayman Nava, who created the online mapping tool, <https://hbg.iha.org>, and Brian Goodness and Ann Hardesty, who contributed to data collection and analysis. Barbara Kate Repa provided invaluable editing services. The project could not have been completed without the participation of the health plan partners, who contributed both data and time to this effort. The participating plans, the Department of Health Care Services, and Mari-beth Shannon at CHCF reviewed a draft of the brief and provided valuable feedback.

APPENDIX A

Methodology for HEDIS by Geography

In 2014, the Integrated Healthcare Association (IHA) recruited 11 health plans to participate in the project.

Exhibit A1: Participating Health Plans, by Product Line

	Commercial HMO	Commercial PPO	Medicare Advantage	Managed Medi-Cal
Anthem Blue Cross	X	X	X	X
Blue Shield of California	X	X	X	
CalOptima			X	X
Health Net	X	X	X	X
Inland Empire Health Plan			X	X
Kaiser Permanente	X		X	X
L.A. Care Health Plan			X	X
San Francisco Health Plan				X
SCAN Health Plan			X	
UnitedHealthcare	X	X	X	
Western Health Advantage	X			

Through a series of workgroup meetings with representatives from each plan, participants agreed on nine measures to report. Measures were chosen on the basis of clinical importance and applicability across product lines.

Only two of the measures, Asthma Medication Management and Colorectal Cancer Screening, are not reported for all product lines. The Table in Appendix B below shows a complete list of measures by product line.

The managed Medi-Cal plans reported additional breakdowns for the three resource use measures, allowing for comparison of the utilization of Seniors and Persons with Disabilities (SPD population) to all other Medi-Cal members.

Each health plan contributed numerator and denominator data by ZIP code reflecting 2013 results for the nine selected HEDIS measures for their Medi-Cal, Commercial HMO and PPO, and Medicare Advantage members in California. The Medi-Cal data is more localized, because Medi-Cal managed care plans operate only in certain counties. Only members in those counties—

and neighboring ones, if members cross county lines to seek care—are included in the Medi-Cal rates.

Data provided was administrative-only for the entire member population; it was not a sample and there was no medical record review. Plans attributed members to a ZIP code based on their home address. One plan with statewide enrollment supplied data for the Medication Management for People with Asthma measure only in Southern California, due to data availability issues.

IHA aggregated the data across plans at the ZIP code level, and rolled the ZIP codes up to Hospital Service Area, Hospital Referral Region, County, Covered California Region (one of 19 regions established by the state for California's public exchange) and statewide averages.

Rates displayed on the map and included in the export feature are suppressed if contributed by only one plan, or if the denominator of the aggregated rate is fewer than 30.

The demographic data displayed was downloaded at the ZIP code level from the Census Bureau website. It was collected in the 2012 American Community Survey.

APPENDIX B

User's Guide to HEDIS by Geography

In May 2015, the Integrated Healthcare Association (IHA) launched an interactive online map tool that allows users to access Healthcare Effectiveness Data and Information Set (HEDIS) data by various geographic units and by product line offered.

Ways to Access the Information

Accessible at <https://hbg.ihc.org>, HEDIS by Geography allows users to display and compare both quality of care and use of health care resources throughout the state of California. Information can also be viewed on the demographics of the populations living there.

Geographical Views Included

Users can filter and view HEDIS data by specific geographical areas, including:

- Statewide
- County, and
- ZIP code.

They can also see the data according to provider service area, including:

- Covered California Region
- Hospital Referral Region, and
- Hospital Service Area.

For each of these geographical views, users can also drill down to sort and view the data by specific product line, including:

- All Plans
- Commercial PPOs
- Commercial HMOs
- Medicare Advantage, and
- Managed Medi-Cal.

Measurements Included

HEDIS by Geography illustrates the quality and use of the state's health care resources by clinical and resource use measures. Some demographic indicators, such as race, education level and primary language spoken, can also be displayed.

Display by Clinical Measures

The site includes clinical measurements involving cancer, diabetes and asthma—commonly considered core priority

health conditions, and all with strong performance measures in place.

The measurements included are:

- **Breast Cancer Screening:** Percentage of women ages 50 to 74 years old who had one or more mammogram(s) to screen for breast cancer
- **Colorectal Cancer Screening:** Percentage of adults ages 50 to 75 years old who had one or more screening(s) for colorectal cancer—including fecal occult blood tests, flexible sigmoidoscopies and colonoscopies
- **Blood Sugar Control for People with Diabetes:** Percentage of adults 18 to 75 years old with either Type 1 or Type 2 diabetes whose most recent HbA1c level is above 9% or who have not been tested during the measurement year (This result is inverted so that a higher rate is better.)
- **Blood Sugar Screening for People with Diabetes:** Percentage of adults 18 to 75 years old with either Type 1 or Type 2 diabetes who have had an HbA1c test performed
- **Kidney Disease Monitoring for People with Diabetes:** Percentage of adults 18 to 75 years old with either Type 1 or Type 2 diabetes who had nephropathy screening or evidence of nephropathy
- **Medication Management for People with Asthma:** Percentage of people with persistent asthma who remained on an asthma controller medication for at least 75% of their treatment period

All performance measures are for the year the care was delivered.

Display by Resource Use

Hospital Readmissions, Emergency Department (ED) Visits and Inpatient Bed Days, important indicators of resources used, as defined below, were also tracked in HEDIS by Geography.

All-Cause Readmissions: Percentage of acute inpatients ages 18 and older discharged and readmitted for any diagnosis within 30 days. An additional breakdown is available for Seniors and Persons with Disabilities who have Managed Medi-Cal coverage; their utilization is

usually much higher than the rest of the Medi-Cal-eligible population.

Emergency Department Visits: Overall rate of visits per thousand member years (PTMY). An additional breakdown is available for Seniors and Persons with Disabilities who have Managed Medi-Cal coverage.

Inpatient Bed Days: Overall rate of all bed days associated with acute inpatient care discharges, on a per thousand member year (PTMY) basis. For Medicare Advantage and Medi-Cal, members 18 and older are included. For Commercial HMOs and PPOs, members 18-64 are included.

Display by Demographics

Users can view the HEDIS data according to the percentage of the population that is:

- Black or African American
- Asian
- Hispanic, and
- White.

And they can also sort it by the percentage of the population who speaks:

- Asian or Pacific Island languages, and
- Spanish or Spanish Creole languages.

The populations can also be viewed according to:

- Median income, and
- Educational attainment, defined as those with a high school degree or above.

Exhibit B1: HEDIS by Geography: Measurements at a Glance

	Measure Name	Commercial HMO	Commercial PPO	Medicare Advantage	Managed Medi-Cal	Total Population
Clinical Quality	Breast Cancer Screening	X	X	X	X	
	Colorectal Cancer Screening	X	X	X		
	Blood Sugar Control for People with Diabetes	X	X	X	X	
	Blood Sugar Screening for People with Diabetes	X	X	X	X	
	Kidney Disease Monitoring for People with Diabetes	X	X	X	X	
	Medication Management for People with Asthma	X	X		X	
Resource Use	All Cause Readmissions	X	X	X	X	
	Emergency Department Visits	X	X	X	X	
	Inpatient Bed Days	X	X	X	X	
Demographic	African American Population					X
	Asian Languages					X
	Asian Population					X
	Educational Attainment					X
	Hispanic Population					X
	Median Income					X
	Spanish Language					X
	White Population					X

Note: All clinical quality and resource use rates are calculated from numerators and denominators reported by the participating health plans. Demographic data is from the U.S. Census Bureau, American Community Survey, 2012: http://factfinder.census.gov/faces/nav/jsf/pages/download_center.xhtml